

# Use of Audiovisual Messages from Land User to Land User for Sharing Knowledge about SLM: Experiences from a Pilot Project in Kenya and Tajikistan

H. Liniger<sup>1</sup>, N. Harari<sup>2</sup>

<sup>1</sup> Centre for Development and Environment / WOCAT / University of Bern, Switzerland. E-mail: [hanspeter.liniger@cde.unibe.ch](mailto:hanspeter.liniger@cde.unibe.ch)

<sup>2</sup> Centre for Development and Environment / WOCAT / University of Bern, Switzerland. E-mail: [nicole.harari@cde.unibe.ch](mailto:nicole.harari@cde.unibe.ch)

**ABSTRACT:** The global World Overview of Conservation Approaches and Technologies (WOCAT) initiative has developed standardised tools and methods to compile and evaluate knowledge available about SLM. This knowledge is now combined and enriched with audiovisual information in order to give a voice to land users, reach a broad range of stakeholders, and assist in scaling up SLM to reverse trends of degradation, desertification, and drought. Five video products, adapted to the needs of different target groups, are created and embedded in already existing platforms for knowledge sharing of SLM such as the WOCAT database and Google Earth application. A pilot project was carried out in Kenya and Tajikistan to verify ideas and tools while at the same time assessing the usefulness of the suggested products on the ground. Video has the potential to bridge the gap between different actor groups and enable communication and sharing on different levels and scales: locally, regionally, and globally. Furthermore, it is an innovative tool to link local and scientific knowledge, raise awareness, and support advocacy for SLM.

**Keywords:** Sustainable Land Management (SLM), knowledge sharing, audiovisual messages, video, World Overview of Conservation Approaches and Technologies (WOCAT)

## 1. INTRODUCTION

A wealth of sustainable land management (SLM) practices, also called SLM technologies and approaches, which improve food security and increase income of rural land users while at the same time protecting the environment and natural resources, are already in use. However, these practices are insufficiently documented and assessed, and information is not easily accessible. Based on the premise that SLM experiences are not sufficiently and comprehensively documented, evaluated, and shared, the global World Overview of Conservation Approaches and Technologies (WOCAT) initiative has developed standardised tools and methods to compile and evaluate bio-physical and socio-economic knowledge available about SLM ([www.wocat.net](http://www.wocat.net)). Based on data from the growing global WOCAT database, SLM practices are presented in an attractive, standardised, soft- and hard-copy format (Liniger et al. 2013). However, what is lacking is informative audiovisual material from land users to land users showing how SLM works, what problems it solves, how challenges can be overcome, and what benefits – locally, regionally, and globally – can be achieved. Against this backdrop, WOCAT is applying video as an innovative audiovisual tool to support and complement WOCAT knowledge on innovative SLM technologies and approaches. Through the combination of audiovisual information, based on local experiences and scientific knowledge on SLM, a powerful package for knowledge sharing and decision-making in SLM is currently being created for use by different stakeholders and for various purposes. The aim is to apply video in promoting SLM by reaching out to a broad range of stakeholders acting as intermediaries between land users in rural development.

The overall goal of the project is to enrich and promote knowledge on existing successful and innovative technologies and approaches in SLM through audiovisualisation using video and new media to improve resilience and livelihoods of rural communities AND improve ecosystem services in areas prone to land degradation.

The project objectives are:

- To capture and share SLM knowledge documented in the WOCAT database in an innovative and attractive way through audiovisualisation for easy understanding and application for a broad range of stakeholders.
- To create awareness of the wealth of the WOCAT knowledge and the local, national, and global importance of SLM.
- To “adWOCATe” for SLM and to assist in scaling up SLM.
- To enhance capacities of local, national, and regional stakeholders to apply innovative SLM technologies and approaches to improve resilience and livelihoods of rural communities.

This paper will present the main ideas of the project, give an overview of the various products envisaged, and discuss experiences gained in a pilot project in Kenya and Tajikistan.

## 2. USE OF VIDEO FOR DIFFERENT TARGET GROUPS

Audiovisual messages can be very influential; seeing, hearing, and understanding the commitment of land users is a powerful motivation to support the sharing of SLM knowledge. Enabling audiences to view/listen to personal experiences from the ground helps them to empathise with land users and understand local realities. In a more general sense, it emotionalises local SLM efforts and shows their impacts and global importance.

The anthropologists and film-makers Barbash and Taylor (1997:1-2) describe the use of film with the following words: “*Film language is the language of moving, seeing, and hearing. More than any other medium or art form, film uses experience to express experience.*” In addition, they emphasise that through film one gains access to all sorts of communities, as films (or audiovisual material in general) can be seen and evaluated by everybody.

Applying audiovisual material in SLM therefore has tremendous power to trigger learning processes across societies and cultures based on experiences and knowledge sharing. Taking into consideration the relevant target groups in SLM, the project generates specific audiovisual messages for:

- technical staff, extension workers, agricultural advisors, project implementers – at field level
- planners, project designers, decision-makers, researchers – at (sub-) national level
- international programme planners, donors – at regional and global level

These target groups act as intermediaries while the *ultimate target group and beneficiaries reached are land users and the public, who benefit from more secure production and environmental services.*

### 2.1 Needs of different target groups

A study by Agro-Insight (2011) revealed that not enough information on SLM is available in the form of audiovisual material:

- SLM information needed *at field level*
  - *Extension workers* for instance need audiovisual material on SLM for themselves and for training land users directly. However, many extension workers rarely use videos to train land users as they are unable to find local language videos, do not know where to look for videos, or cannot find videos on the right topic. Therefore, videos should be made available in local languages and, for international use, in other languages, e.g. English, Spanish, French, Russian, and Chinese.
  - Many land use practices are hard to explain in words only, hence the visual aspect is a key element making video effective in training. Furthermore, land users demonstrating the technologies “in an easy-to-understand language” is a much more powerful way for creating learning processes than if the same messages are only produced by experts.
  - Video is a useful tool to reach illiterate land users and to train people in groups or entire communities.
- SLM information needed *at national level*
  - National TV stations are in need of material to fill their environmental programmes. With the spread of rural electrification and expanded television coverage, access to TV broadcasts has increased.
  - Planners and decision-makers need convincing material and stories about SLM to advocate SLM in their work environment.
- SLM information needed *at regional and global level*
  - There is a lack of available good video content on SLM. Although many videos are uploaded onto YouTube it is difficult to find good information, e.g. for farmer training purposes, and the information is rather for personal home consumption.
  - International programme planners and donors need convincing material and stories about SLM to advocate SLM in their work environment.

### 3. VIDEO PRODUCTS FOR KNOWLEDGE SHARING IN SLM

WOCAT has developed standardised tools and methods for the documentation, evaluation, and dissemination of good SLM practices i) at the local / field level, ii) at the (sub-) national and regional level and iii) at the global level (Liniger et al. 2013, , Giger et al. 2013). Directly linked to these are the following five outputs produced in the described project:

1. Establishment of the WOCAT video sharing platform
2. Creation and sharing of SLM video clips linked to the WOCAT knowledge base
3. Production of land user to land user SLM training videos
4. Production of SLM documentaries for national TV broadcast
5. Creation of SLM awareness documentaries for the global community

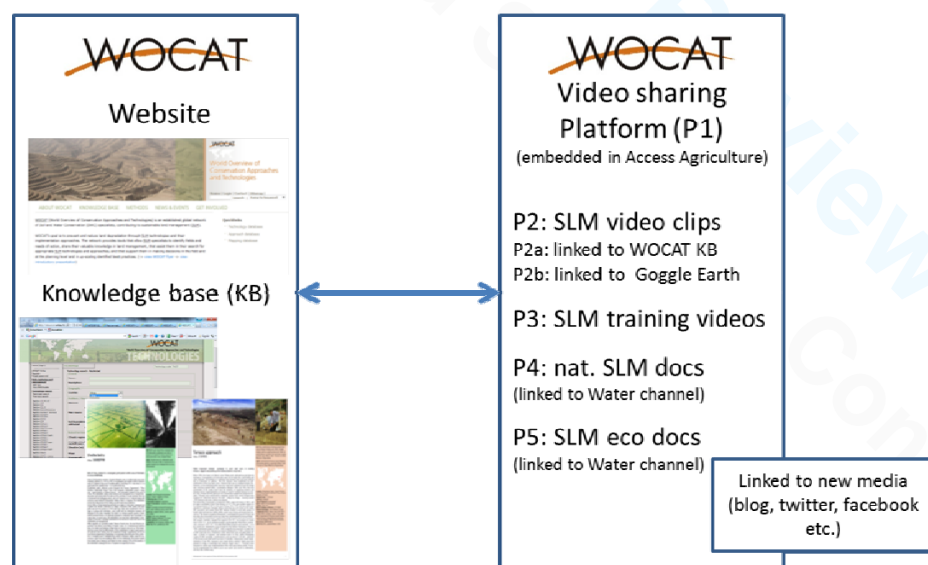


Fig. 1: Overview of the five project outputs linked to the WOCAT knowledge base

The project follows six leading principles to achieve the above-mentioned outputs:

- give voice to land users presenting their personal experiences
- audiovisualise local and scientific knowledge on SLM
- share SLM knowledge between land users, experts, planners, and the global community
- highlight the dependency of land users within watersheds
- show land users' adaptations to changing environment, e.g. climate change, increasing disaster risk, changing market
- link local improvements with global concerns about the state of the world

The standardised summaries of SLM technologies and approaches presented through the WOCAT documentation are enhanced with five video products (Figure 1). The production of short video clips on SLM practices is based on land users' experiences – or, in other words, audiovisual messages by land users for land users – and builds the basis for establishing the five project outputs. Depending on the product and the target group these short video clips are complemented with additional footage such as statements of relevant stakeholders. By using Google Earth a 'zoom in–zoom out' approach is applied to demonstrate local applications of key principles and, at the same time, promote a regional understanding for watershed or landscape solutions. The following six guiding themes were defined for the video clips including the main questions to be asked to the land users demonstrating the SLM practices and sharing their knowledge:

(1) *Degradation addressed*: What is the land and water degradation problem? Can you show it and its impact (locally / on the field and for the neighbours / downstream)?

(2) *Functionality of SLM technology*: How does it work? Why does it work, can you show / demonstrate it? *Functionality of SLM approach*: From where did you get the idea to implement the technology? Did anybody help you (who)? Did you get any training? Are you organised in a group to further promote SLM?

(3) *Local and regional impacts of SLM*: Can you explain and show local and regional impacts of the practices you applied?

(4) *Main costs and local and regional benefits*: What are the major costs, inputs, materials needed? Who paid for them? What are the main benefits on- and off-site (locally and for neighbours / downstream)?

(5) *Transformation achieved*: Can you show the difference without and with the technology? Or can you show the difference before and after introducing the technology or approach?

(6) *Adaptation to climate variability and change and benefits for climate resilience (CR) or disaster risk reduction (DRR)*: How does the technology or approach function in hotter or colder years and during unexpected weather events (dry periods, heavy storms)? What are the benefits? Can you tell / show us an example where the technology or approach benefited DRR?

In order to guarantee a wide distribution of the video products they will be embedded in and linked to the websites of the international NGO Access Agriculture ([www.accessagriculture.org](http://www.accessagriculture.org)) and the Water Channel ([www.thewaterchannel.tv](http://www.thewaterchannel.tv)) (see Fig. 1). In addition, videos are directly linked with the WOCAT Google Earth application, an open access tool that everyone can download. Currently the WOCAT Google Earth application user can click on a WOCAT icon in Google Earth and a window with a summary of a technology and approach appears. These summaries are coupled with video clips facilitating both reading about an SLM technology and approach as well as learning directly from land users through audio-visual messages (Fig. 2).



Fig. 2: Audiovisual messages in the WOCAT Google Earth application

## 4. PILOT PROJECT KENYA AND TAJIKISTAN

In the course of the past two years video products were created in two locations where opportunities evolved to work with interested organisations and projects. Some of the results can be viewed on the WOCAT website under ‘knowledge base’<sup>1</sup>; others were created for particular audiences and events.

### 4.1 Lessons Learnt from Kenya

The pilot project in Kenya was realised within the framework of the Green Water Credits (GWC) project in the Mt. Kenya – Tana river region ([www.greenwatercredits.net](http://www.greenwatercredits.net)). The project was carried out in collaboration with stakeholders from the Kenyan Water Authority and members of local River Water Users’ Associations (RWUAs). The GWC project focuses on the connection between upstream and downstream land users and their shared dependency on the same water resources. As good water conservation upstream is essential and beneficial to the livelihoods of the people downstream as well as for the production of hydropower, the efforts of the upstream land users should be compensated by introducing an innovative credit system. As the credit system was not yet fully established, the project focused on documenting soil and water conservation efforts upstream, by visiting innovative land users and members of the RWUAs, and understanding the regional interconnectedness and dependency by documenting short extracts from people’s lives downstream.

As a first result a short video was produced to show the idea of giving a voice to local land users, connecting them to other land users (downstream), and linking local, regional and global views and visions. In addition, short video clips on SLM practices were produced which helped shape the six guiding themes described in section 3 of this paper. The ‘zoom in–zoom out’ approach

<sup>1</sup> [www.wocat.net/en/knowledge-base/documentation-analysis/videos.html](http://www.wocat.net/en/knowledge-base/documentation-analysis/videos.html)

was tested and integrated into the video, proving the usefulness of linking the SLM video clips with the existing WOCAT Google Earth tool.

The different video products were shown to and evaluated with the stakeholders involved in the project and other audiences to assess the usefulness for and needs of different target groups and clearly define the five project outputs. Representatives from the Kenyan Water Authority emphasised the practical value of SLM video clips for training purposes within the framework of the RWUAs, an established platform for knowledge sharing. Land users were particularly impressed by the benefits of using video for demonstrating and understanding the differences between plots with and without conservation practices, directly shown and explained by a fellow land user in the field.

## 4.2 Lessons Learnt from Tajikistan

Based on the Tajikistan Pilot Program for Climate Resilience (PPCR) where WOCAT together with other partners documented 70 SLM technologies and approaches<sup>2</sup>, the video project in Tajikistan was implemented in collaboration with the National Centre of Competence in Research (NCCR) North-South ([www.north-south.unibe.ch](http://www.north-south.unibe.ch)), the Swiss Agency for Development and Cooperation (SDC), and CARITAS Switzerland. The aim of the project was to produce SLM video clips for a number of SLM practices documented within the framework of the PPCR in order to give a voice to land users and audiovisualise and share knowledge about existing SLM practices. A particular focus was given to climate change adaptation and conservation practices for disaster risk reduction (DRR). As of now, ten short SLM video clips (Fig. 3) were produced and shown during various local and regional conferences and events as well as local SLM training.

**Videos to enhance dissemination of documented SLM practices**  
Наворхо бо максад пахн кардани таҷрибаи ИБЗТ



Technologies / ТехнолоҒия	
1.	Conversion of grazing land to fruit and fodder plots Таъдил дтхии замини чарогоҳ ба бог ва истехсоли хуроки чорво
2.	Orchard-based Agroforestry Ҳамбастагии дарахт ва зироати
3.	Reduced pressure on forest resources by improved thermal insulation Кам кардани фишор аз захираҳои ҷангал ба воситаи гарм нигоҳ доштани хонаҳо
4.	Energy efficiency measures to increase the application of organic fertilizer Чораҳои сарфақории нерӯ барои зиёд кардани нуриҳои минерали
5.	Roof top rainwater harvesting Ҷамоварии оби борон аз бони хонаҳо
6.	Infilling of gullies with vegetative structures Пур кардани оббурдаҳо ба воситаи шинонидани дарахтон
7.	Rotational grazing supported by additional water points Чаронидани давравӣ ба воситаи шинонидани нуктаҳои обнуши

Approaches / Рағия, усул	
8.	Village school participation and involvement Ҷалб ва иштироки мактаби деҳа
9.	Livestock Committee at village level Қумитаи Чорводори дар сатҳи деҳа

Fig. 3: Overview of SLM video clips Tajikistan

Experiences and feedback from Tajikistan helped to further define and concretise both the guiding themes and the project outputs while tailoring them to the specific needs of the different target groups. The application of the SLM videos in the training proved again the usefulness and value of audiovisual material for knowledge sharing between land users and in decision support on the implementation of practices to mitigate land degradation. In addition, through the videos, the link between scientific and local knowledge could be easily established.

Great interest and potential exists to create an SLM documentary for national TV broadcast (Product 4) where selected SLM practices from different districts throughout Tajikistan can be shown with particular focus on SLM for DRR. Producing such a documentary, however, would require further resources.

<sup>2</sup> To download the full collection: [www.wocat.net/fileadmin/user\\_upload/documents/Books/Tajikistan\\_wocat-collection2011\\_eng\\_final.pdf](http://www.wocat.net/fileadmin/user_upload/documents/Books/Tajikistan_wocat-collection2011_eng_final.pdf)



## 5. POLICY ORIENTED RECOMMENDATIONS

The described project is based on the need to improve knowledge sharing in SLM, and the need to use it in decision-making to reverse current trends in land degradation, desertification, and drought. The use of video is highly recommended due to its ability to bridge the gap between different actor groups, enable communication and sharing between a wide range of stakeholders, raise awareness, and support advocacy for SLM. With its focus on giving a voice to land users, first-hand knowledge from the field is shared with other land users, communities, extension staff, researchers, and policymakers, whereby the difficulties, challenges, and benefits are communicated by those who face these issues on the ground.

Due to the project's embeddedness in WOCAT tools and databases as well as other channels, a direct link between local and scientific knowledge is created: local knowledge is backed with scientific data and scientific data is audiovisualised through the use of video. As all of these materials are accessible to the general public, they have great potential to directly inform governmental and non-governmental actors as well as communities. In addition, WOCAT's recommendation to use a standardised format allows for a comparison of degradation and conservation trends worldwide. The described project is consistent with this strategy and further strengthens the idea of harmonising all efforts of different institutions and projects, by offering a platform for knowledge sharing and dissemination at different levels and scales.

## 6. CONCLUSIONS

Experiences from Kenya and Tajikistan confirmed the great value and potential of the use of audiovisual information for fostering knowledge sharing in SLM and the usefulness of tailoring different video products to particular target groups. Even though the specific focus shifts from one country or region to another (in Kenya a strong focus was given to the watershed and the link between upstream and downstream users whereas in Tajikistan climate change adaptation and DRR were highlighted) keeping a standardised format for all locations, linked to other WOCAT outputs, is essential as it guarantees comparability and applicability on various scales and by a wide range of actors.

A process of developing new partnerships is ongoing, with the aim of creating a wealth of video products to feed the SLM Video Sharing Platform (Product 1) by covering all global ecological zones. In addition, SLM video clips are produced in locations where WOCAT is carrying out an evaluation of best SLM practices and a special interest from partners, projects, and donor groups exists.

## 7. REFERENCES

- Barbash, Ilisa; Taylor, Lucien (1997). *Cross-Cultural Filmmaking: A handbook for making documentaries, ethnographic films and videos*, University of California Press, Berkeley and Los Angeles, California.
- Agro-Insight (Van Mele, Paul) (2011). *Video-mediated farmer-to-farmer learning for sustainable agriculture: A scoping study for SDC, SAI Platform and GFRAS*. Agro-Insight, Ghent, Belgium.
- Giger, M.; Liniger, H.P.; Schwilch, G. (2013). *Economic benefits and costs of technologies for sustainable land management (SLM): A preliminary analysis of global WOCAT data*. Extended abstract for 2nd UNCCD Scientific Conference in Fortaleza, Brazil, 4–7 February 2013.
- Liniger, H.P.; Schwilch, G.; Mekdaschi Studer, R.; Providoli, I.; Bunning, S.; Biancalari, R.; van Lynden, G. (2013). *Tools for better SLM knowledge management and informed decision making in addressing land degradation at different scales: the WOCAT-LADA-DESIRE methodology*. Extended abstract for 2nd UNCCD Scientific Conference in Fortaleza, Brazil, 4–7 February 2013.